

Delta Stewardship Council

CA Almond Board: The Almond Conference

Water: Are We Still at the Wishing Well?

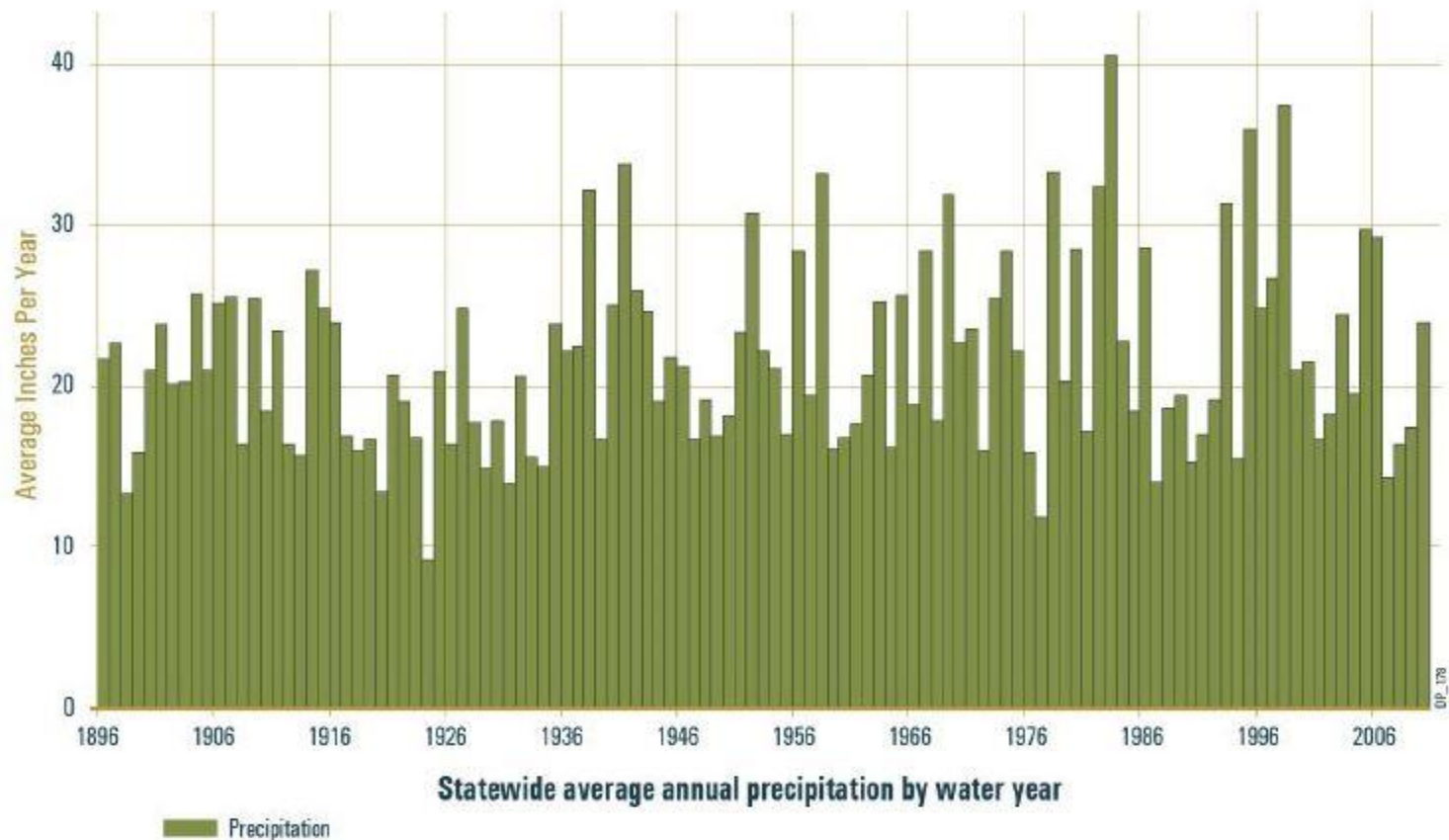
Phil Isenberg, Chair
Delta Stewardship Council

December 4, 2013

deltacouncil.ca.gov



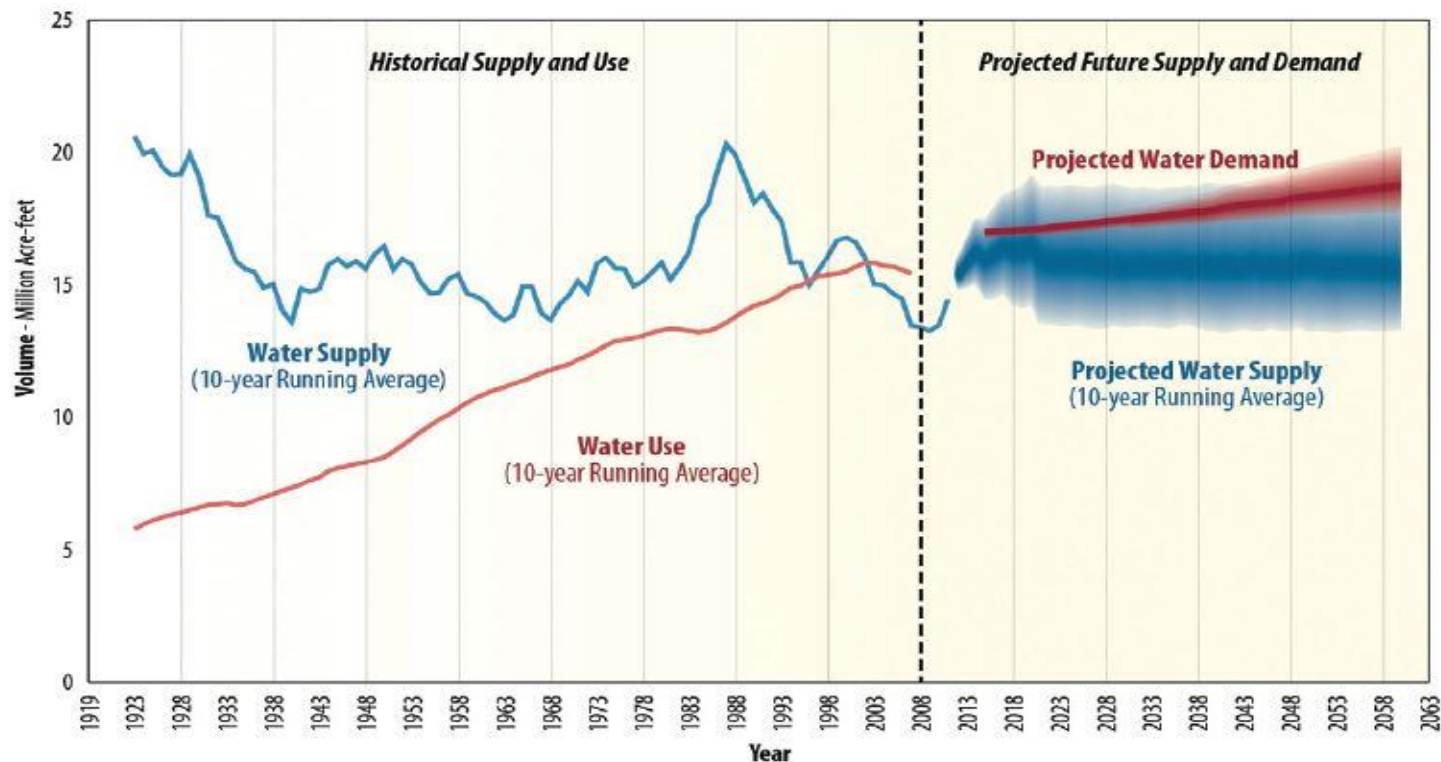
Our Water Supply Comes Mostly From Rain & Snow – and is Increasingly Erratic



Source: Western Regional Climate Center 2011
Delta Plan, 2013, Figure 1-3, Chapter 1, Page 7

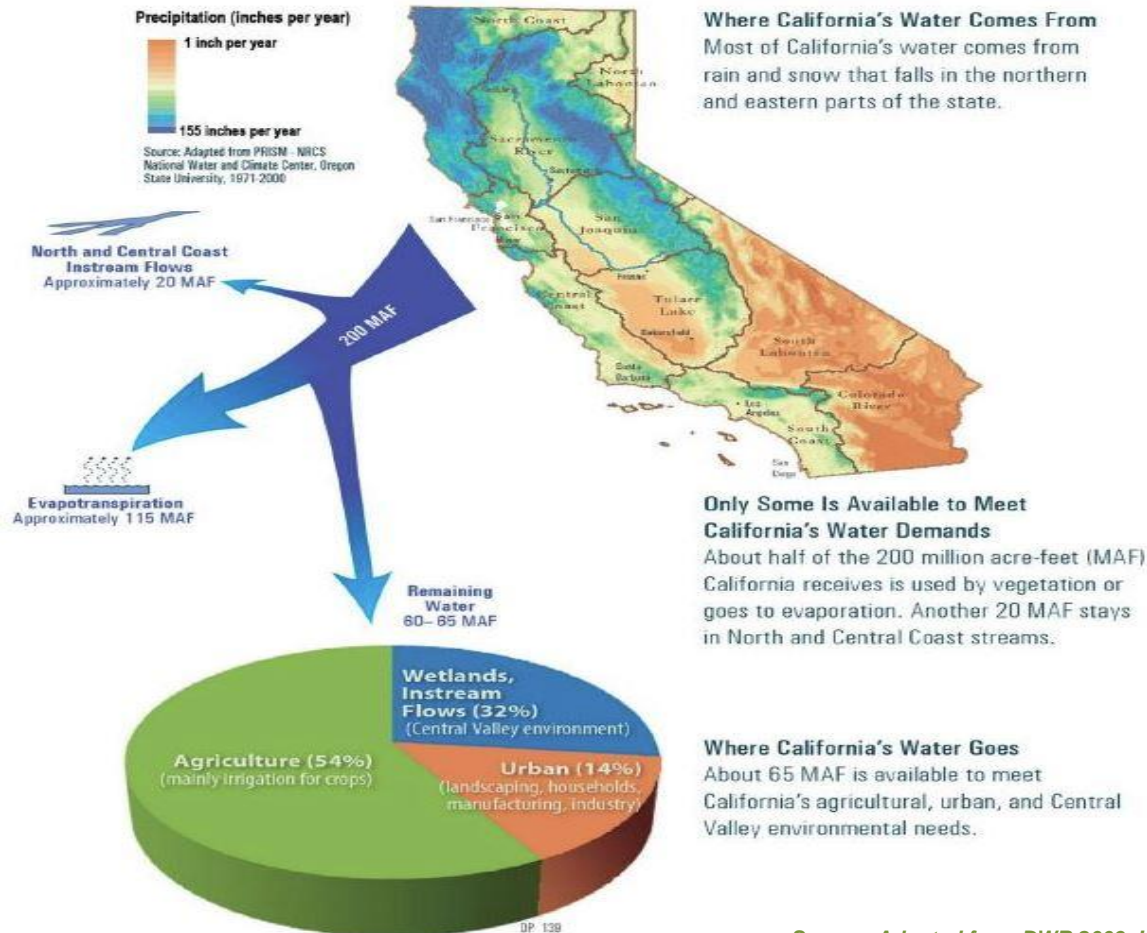
Matching Demands to the Supply Available from the Colorado River is Inevitable

Historical Supply and Use and Projected Future Colorado River Basin Water Supply and Demand



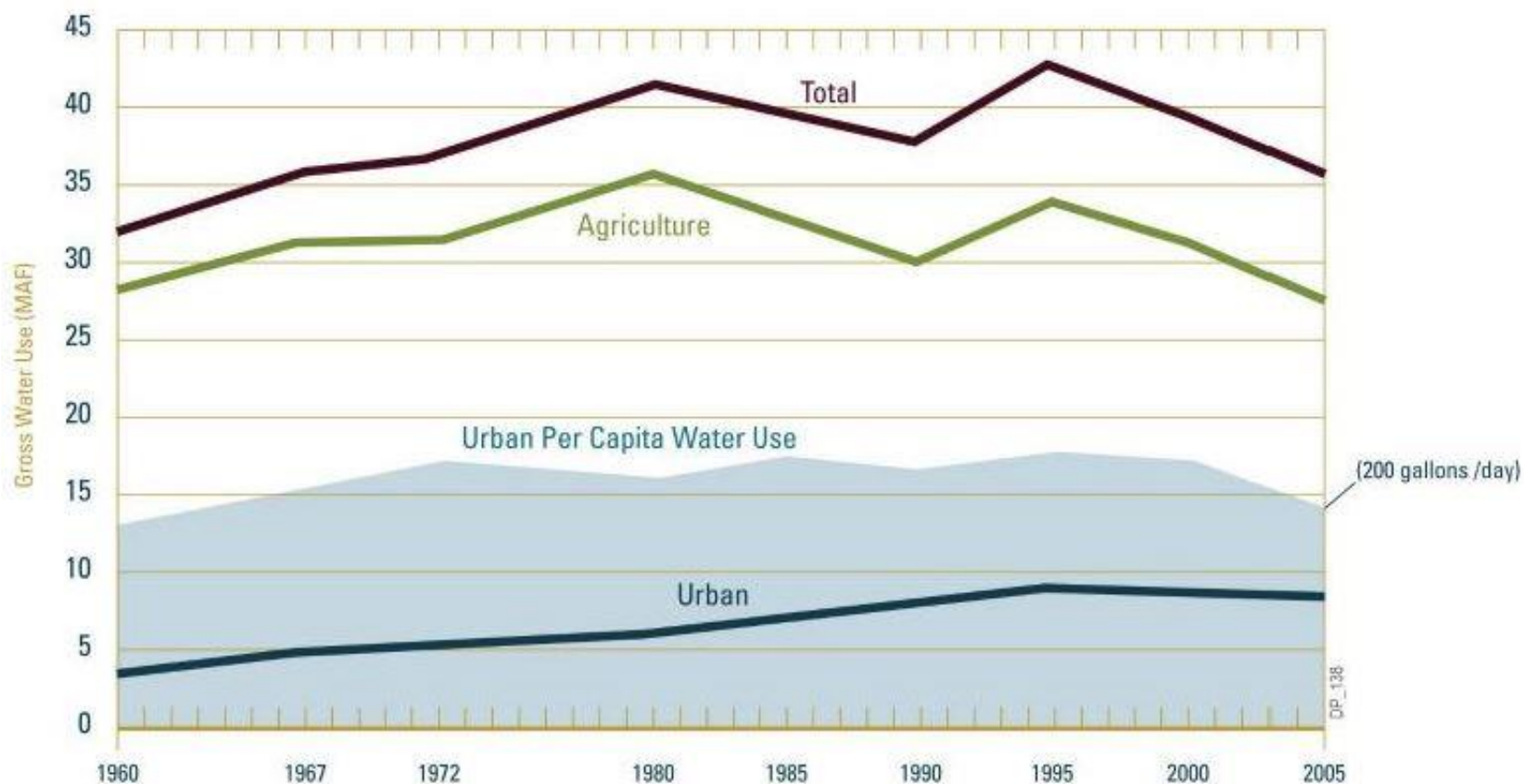
Source: US Bureau of Reclamation

Water Use Overall



Source: Adapted from DWR 2009, USGS 2010
 Delta Plan, 2013, Figure 3-1, Chapter 3, Page 67

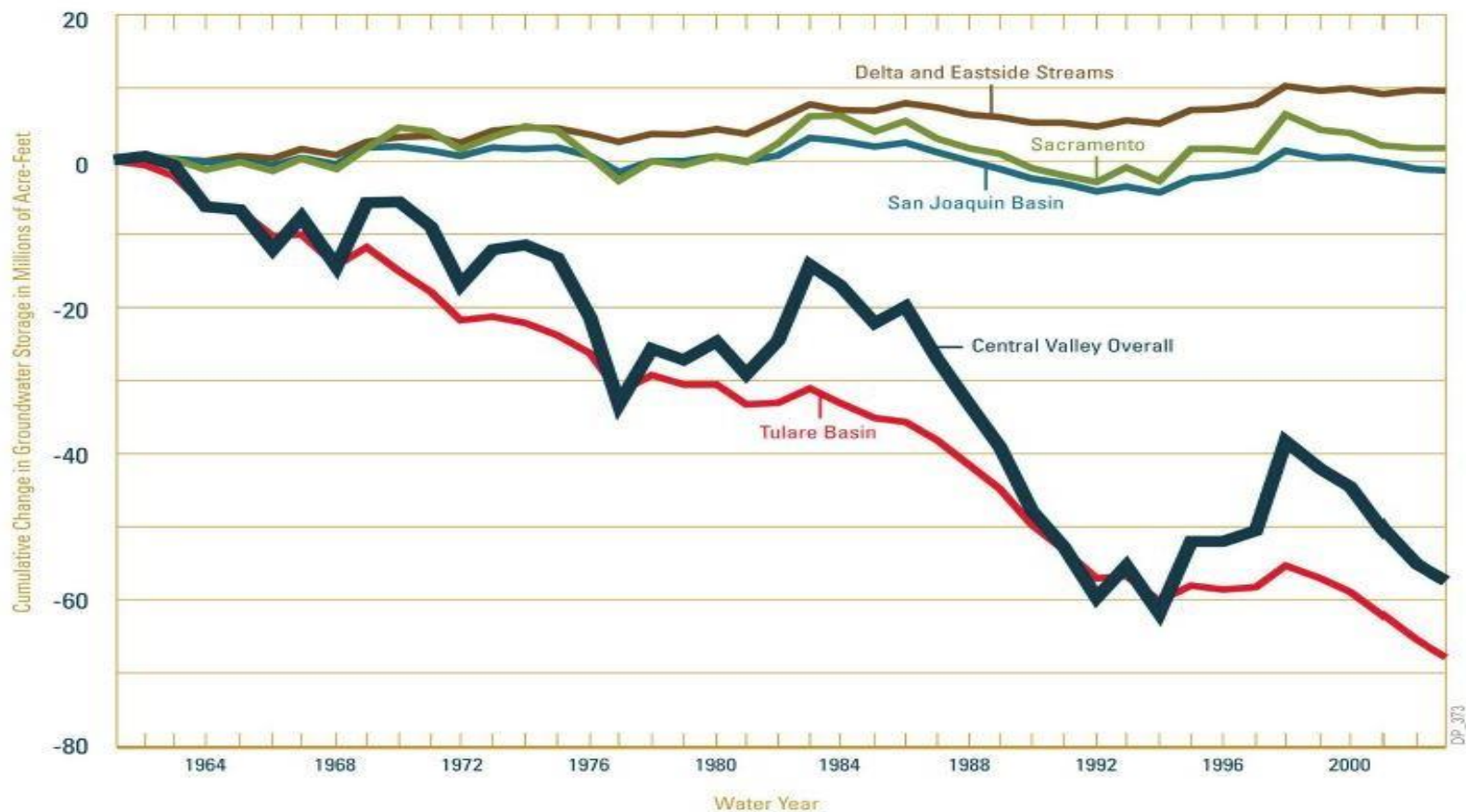
Water Use Trends



Source: Hanak et al. 2011; adapted from DWR 2009
Delta Plan, 2013, Figure 3-8, Chapter 3, Page 97



Groundwater: A Special Problem



Source: Faunt 2009
Delta Plan, 2013, Figure 3-10, Chapter 3, Page 99



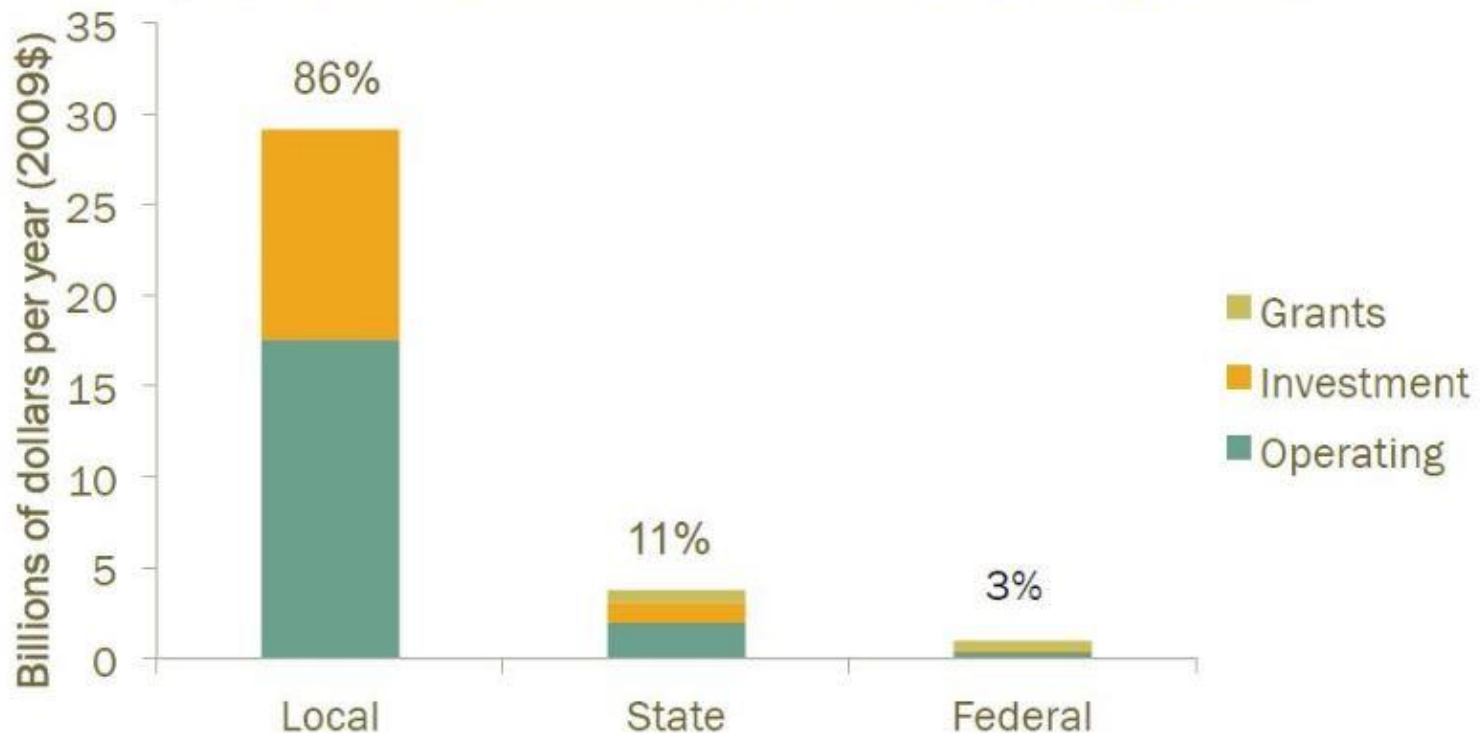
Present-Day Delta Flows are Very Different from Historical, Natural Flows

- 🌊 Seasonal flows are much less variable and encourage nonnative fish and vegetation
- 🌊 Peak flows now come at lower magnitudes and occur earlier on the San Joaquin River
- 🌊 As exports and upstream consumptive use have increased, current fish populations are less than one percent of 1968 levels

Source: PPIC, Hanak, E., J. Lund, A. Dinar, B. Gray, R. Howitt, J. Mount, P. Moyle, & B. Thompson, 2011




Local Agencies Do Most Spending on California Water

Water sector spending, late 2000s : \$34 B/year
(supply, wastewater, flood protection, ecosystems)

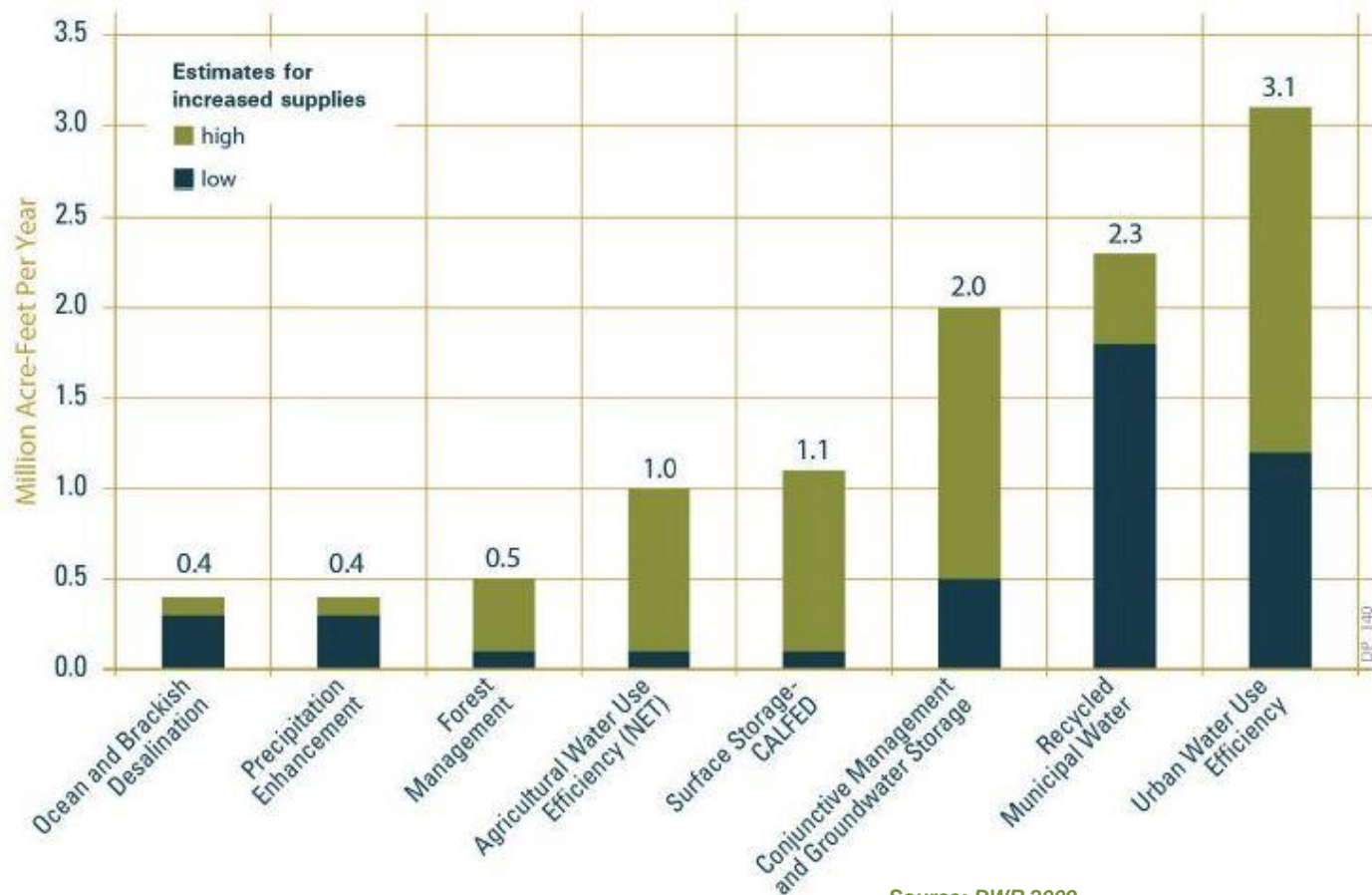


Source: Hanak et al. Water and the CA Economy 2012

2013 Water Plans with Common Broadly Based Problems & Solutions

-  California Water Action Plan
 - *Governor Brown's Staff Recommends*
 - http://resources.ca.gov/docs/Final_Water_Action_Plan.pdf
-  Delta Plan
 - *Delta Stewardship Council adopted in May, 2013*
 - <http://deltacouncil.ca.gov/delta-plan-0>
-  2013 Water Plan Update
 - *Dept. of Water Resources document*
 - <http://www.waterplan.water.ca.gov/cwpu2013/prd/index.cfm>

How Do We Get Out of the Pickle We Are In



Source: DWR 2009
Delta Plan, 2013, Figure 3-7, Chapter 3, Page 92

The Delta Plan Promotes and Enforces

- Reduced Reliance
- Increased Regional Self-Reliance
- Diversification of Water Portfolio
- Investment in Water Storage
 - *Both above and below ground*
- Conveyance
- Responsible for Land Use to Protect a Reliable Water Supply and an Improved Delta Ecosystem

